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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------------------|
| 10/625,763 | 07/22/2003 | F. Coyne Prenger | S-100,646 | 7843 |
| 7590 | 12/06/2005 | | | EXAMINER BARRY, CHESTER T |
| Bruce H. Cottrell Los Alamos National Laboratory LC/IP, MS A187 Los Alamos, NM 87545 | | | ART UNIT 1724 | PAPER NUMBER |

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/625,763 | PRENGER ET AL. |
| | Examiner Chester T. Barry | Art Unit 1724 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 October 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 31-36 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 31-36 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 22 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

Art Unit: 1724

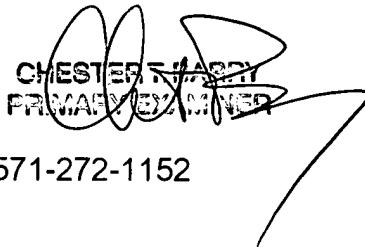
Applicants' election without traverse is noted.

Claims 31 – 35 are rejected under 35 USC Sec. 103(a) as obvious over Lidzey.

USP 5441648 to Lidzey describes a mixing chamber A, a ball matrix within a magnetic separator, and an outlet F. The ref. describes placing magnetite and water to be decontaminated in the feed tank A, but does not appear to describe two inlet conduits for adding contaminated water and magnetite into the feed tank. It would have been obvious to have provided the stirred feed tank with conduit for separately adding contaminated water and magnetite to the feed tank A in order to facilitate continuous processing of the water. The patent describes adding water at E and draining water out at D. It would have been obvious to have provided the water to E via a conduit to facilitate continuous operation of the matrix backwashing process.

Per claim 36, the ref. describes the ball matrix chamber as on having a cross sectional area of about $(13 \times 4) \text{ cm}^2$, or about 52 cm^2 (at col 2 line 65). At the water flow rates described in the ref., i.e., 4, 2, and 1 L/min (see col/line 4/37), the superficial water velocity through the magnetic separator is inherently described as about 1.3, 0.6, and 0.3 cm/sec.

Patents cited of interest: 5855790, 5538701, 4781298, and 4701261.


CHESTER T. WARD
PRIMARY EXAMINER
571-272-1152